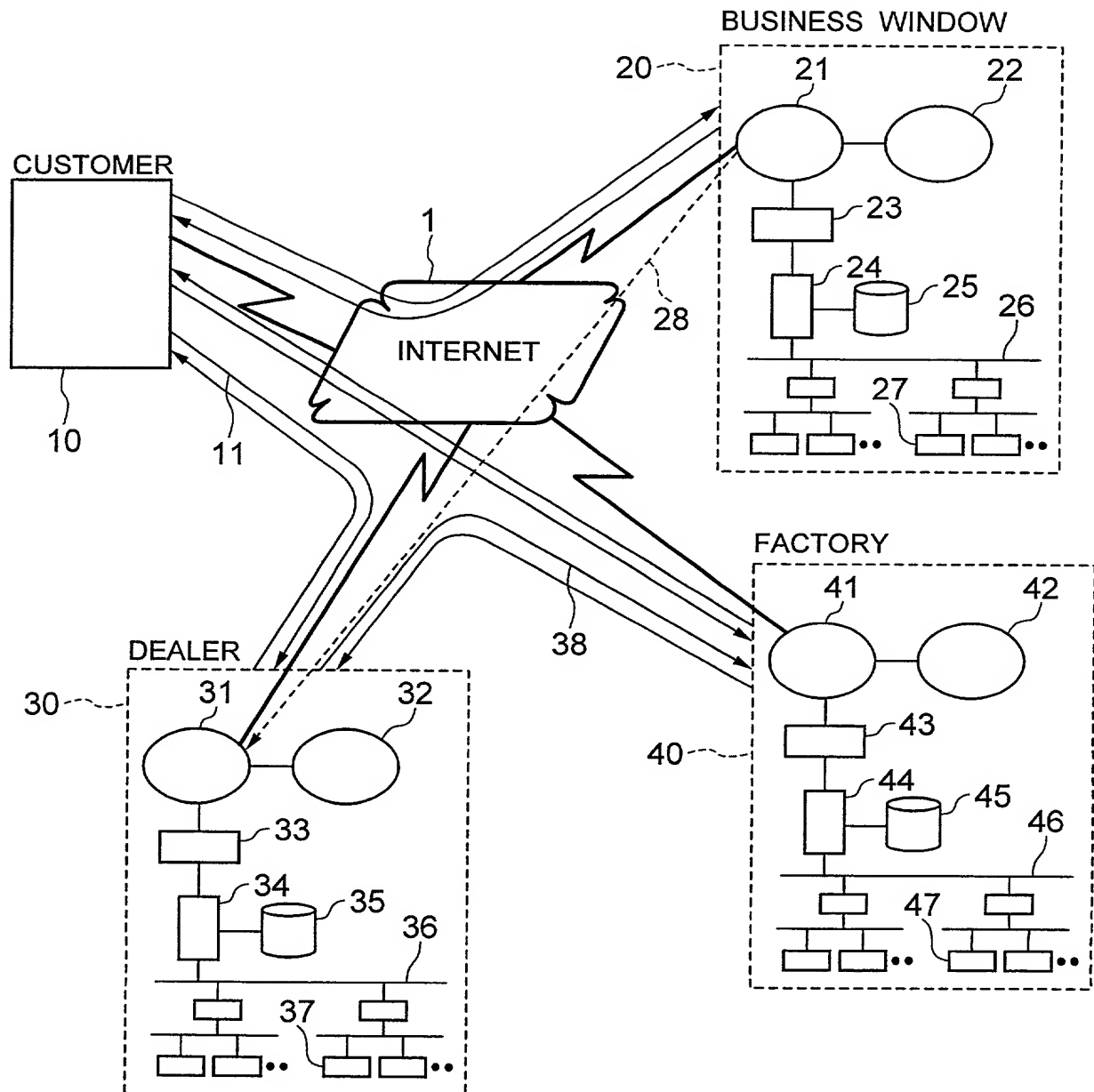


FIG. 1



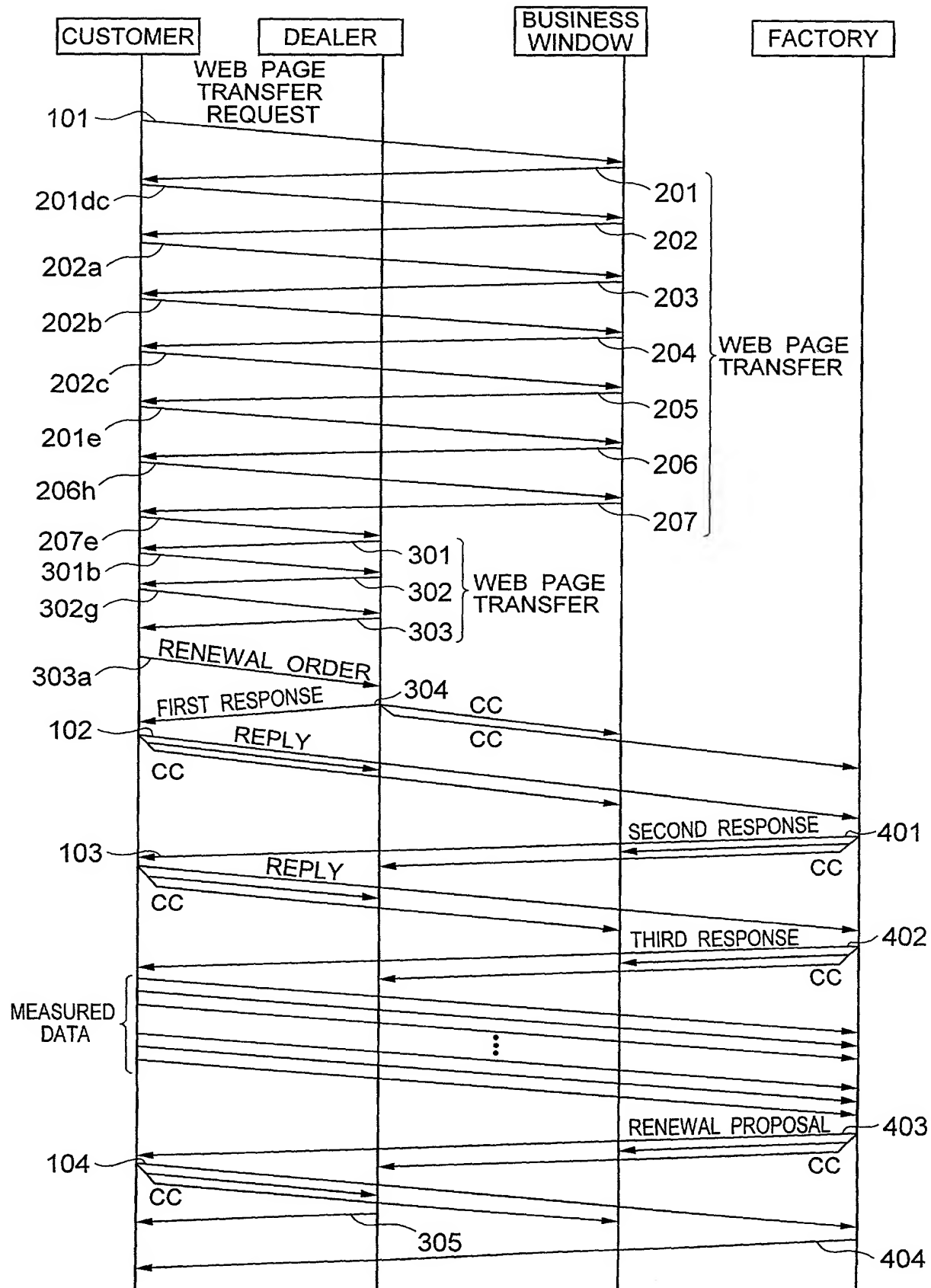
Applicant: Tomomi Izuna, et al.

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FIG. 2



Applicant: Tomomi Izuna, et al.

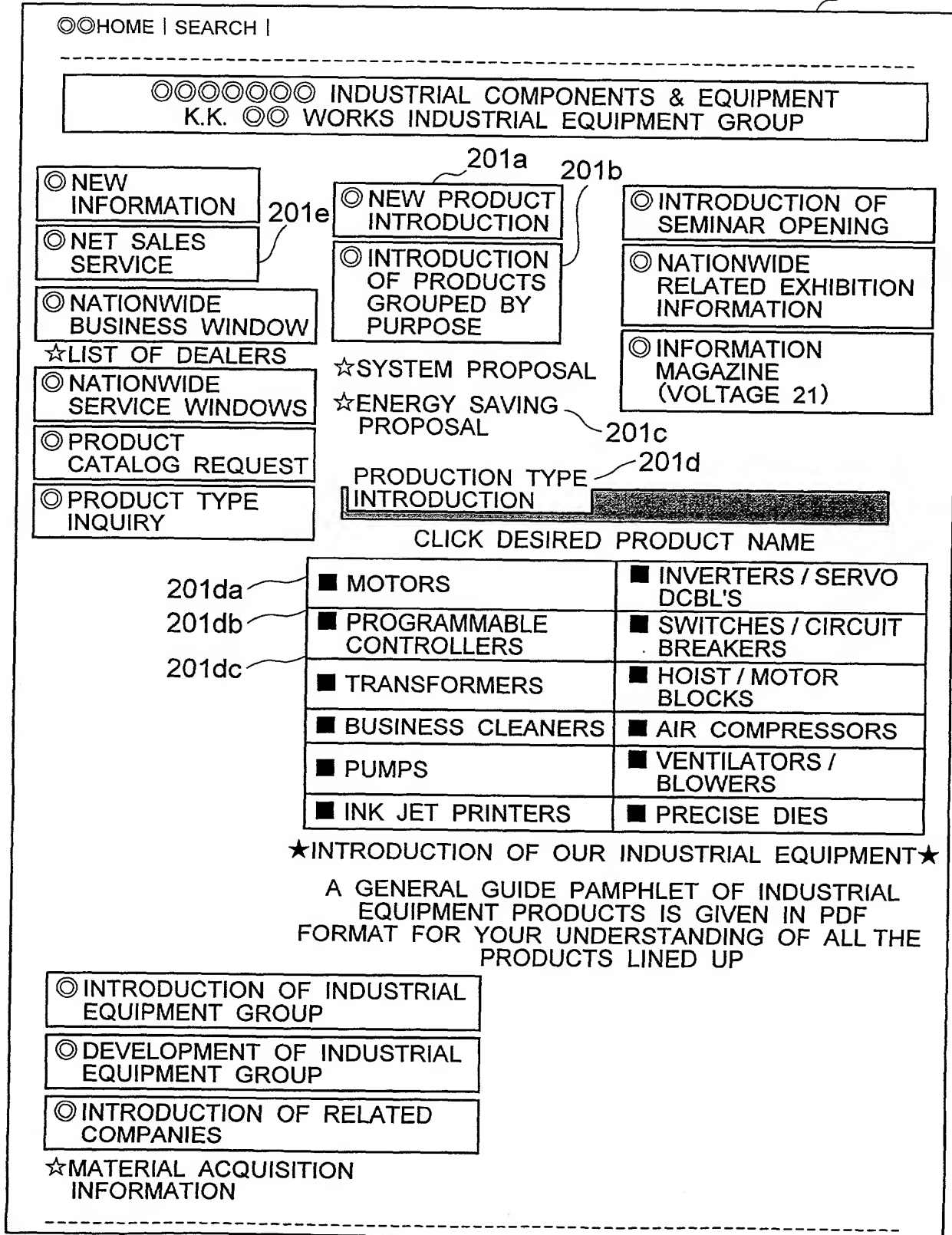
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FIG. 3

201



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## FIG. 4

202

◎◎HOME | SEARCH |

◎◎ SUPER-ENERGY-SAVING  
TRANSFORMER

Super△△△△△△

HEISEI XX ◎◎◎◎◎

◎◎◎◎ AWARD ACQUIRED

TOTAL LOSS ABOUT 1/2, SUPER ENERGY SAVING  
TRANSFORMER DEMANDED BY CURRENT AGEELECTRIC ENERGY WHICH IS A MUST TO INDUSTRIES AND  
OUR LIVINGSFOR SUCH TRANSFORMERS SUPPORTING THE DEMAND, HIGH  
ENERGY CONVERSION EFFICIENCY IS REQUIRED

◎◎SUPER-ENERGY-SAVING TRANSFORMER

SERIES Super△△△△△△ IS....

## ●FEAUTURES

1. REMARKABLY REDUCED "NO-LOAD LOSS" AND  
"LOAD LOSS" AND REALIZATION OF "ENERGY  
SAVING" AND "MINIMUM RUNNING COST" 202a
2. IMPROVED WINDING STRUCTURE OF EMPOLYING  
CORE MADE OF AMORPHOUS ALLOY ENABLED  
REDUCTION OF TOTAL LOSS BY ABOUT 50%  
(WHEN COMPARED TO EXISTING STANDARD) 202b
3. MERIT OBTAINED BY THE ATOM ARRAY STRUCTURE  
OF AMORPHOUS ALLOY APPLIED TO THE CORE OF  
THE TRANSFORMER 202c

## ●SPECIFICATION LIST TABLE

■ Super△△△△△△ OIL-CONTAINED TRANSFORMER

● STANDARD CHARACTERISTIC TABLE 202d

● ATTACHMENT LIST TABLE 202e

● DIMENSIONAL TABLE

■ Super△△△△△△ OIL-CONTAINED TRANSFORMER

◎ WHEN YOU WISH "NEW INSTALLATION" OR "RENEWAL" FOR  
YOUR TRANSFORMER, CLICK  
"NATIONWIDE BUSINESS WINDOWS" AND ORDER A NEARBY  
DEALER 202f

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## FIG. 5

203

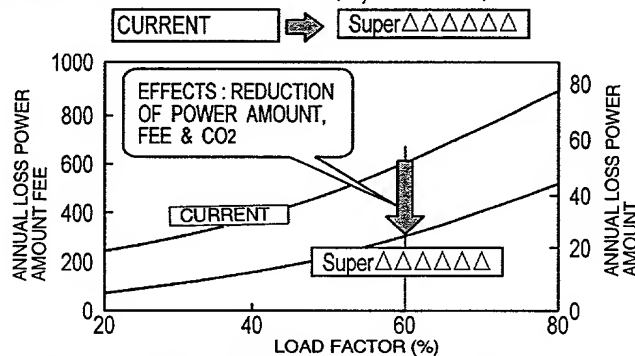
◎◎HOME | SEARCH |

## ● FEATURE 1

REMARKABLY REDUCED "NON-LOAD LOSS" AND "LOAD LOSS" AND  
REALIZATION OF "ENERGY SAVING" AND "MINIMUM RUNNING COST"  
ENERGY SAVING EFFECT

- GREATER ENERGY SAVING EFFECT FOR HIGHER LOAD FACTOR
- EVEN IN EITHER CASE OF NEW INSTALLATION AND RENEWAL, GREAT ENERGY SAVING EFFECT (SAVING OF POWER FEE, REDUCTION OF POWER AMOUNT AND REDUCTION OF CO<sub>2</sub>) IS OBTAINED

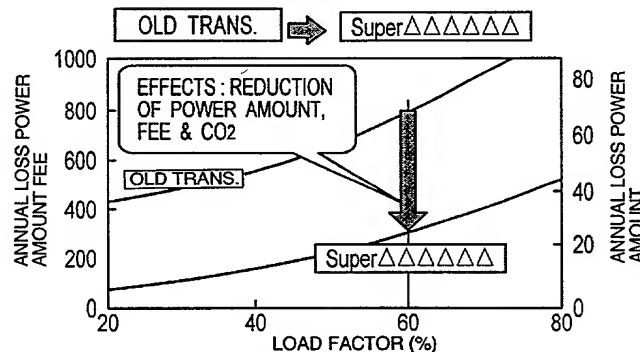
## ■ NEW INSTALLATION (1,000kVA)



1 ANNUAL LOSS POWER AMOUNT FEE (THOUSAND YEN/YEAR)=[NO-LOAD LOSS (W)+LOAD LOSS (W)×(LOAD FACTOR)<sup>2</sup>]/1,000×365 (DAYS)×24(h)×UNIT ELECTRICITY RATE (11 YEN/kWh)/1,000

2 CO<sub>2</sub> REDUCTION AMOUNT (t/year): CALCULATED ACCORDING TO CO<sub>2</sub> EMISSION COEFFICIENT 0.423 [kg-CO<sub>2</sub>/kWh] AT POWER RECEIVING END IN 1990. (NOTE: C EMISSION COEFFICIENT BY CARBON CONVERSION IS 0.106 [kg-C/kWh])

## ■ RENEWAL (EXAMPLE OF 1,000kVA)



1 ANNUAL LOSS POWER AMOUNT FEE (THOUSAND YEN/YEAR)=[NO-LOAD LOSS (W)+LOAD LOSS (W)×(LOAD FACTOR)<sup>2</sup>]/1,000×365 (DAYS)×24(h)×UNIT ELECTRICITY RATE (11 YEN/kWh)/1,000

2 CO<sub>2</sub> REDUCTION AMOUNT (t/year): CALCULATED ACCORDING TO CO<sub>2</sub> EMISSION COEFFICIENT 0.423 [kg-CO<sub>2</sub>/kWh] AT POWER RECEIVING END IN 1990. (NOTE: C EMISSION COEFFICIENT BY CARBON CONVERSION IS 0.106 [kg-C/kWh])

◎ WHEN YOU WISH "NEW INSTALLATION" OR "RENEWAL" FOR YOUR TRANSFORMER, CLICK "NATIONWIDE BUSINESS WINDOWS" AND ORDER A NEARBY DEALER

203a

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FIG. 6

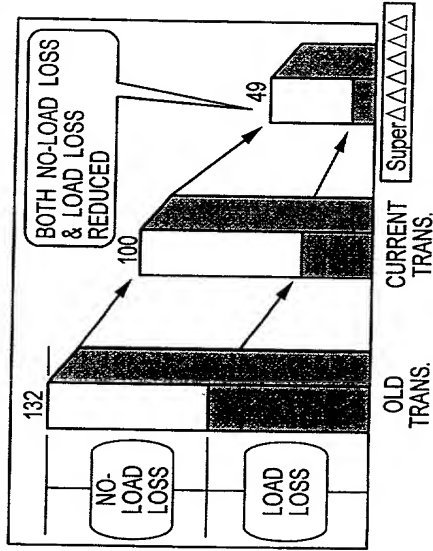
204

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## ● FEATURE 2

IMPROVED WINDING STRUCTURE OF EMPLOYING CORE MADE OF AMORPHOUS ALLOY ENABLED REDUCTION OF TOTAL LOSS BY ABOUT 50% (WHEN COMPARED TO EXISTING STANDARD)

■ LOSS (EXAMPLE OF 1,000kVA, 60% LOAD FACTOR)



© WHEN YOU WISH "NEW INSTALLATION" OR "RENEWAL" FOR YOUR TRANSFORMER, CLICK "NATIONWIDE BUSINESS WINDOWS" AND ORDER A NEARBY DEALER

204a

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FIG. 7

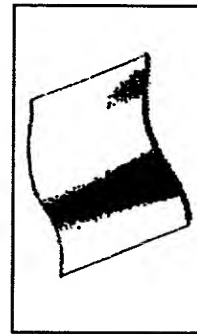
205

©HOME | SEARCH |

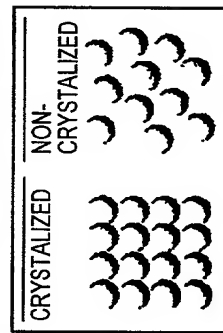
### ● FEATURE 3

MERIT PRODUCED BY ATOMIC ARRAY STRUCTURE OF AMORPHOUS ALLOY APPLIED TO TRANSFORMER CORE

AMORPHOUS ALLOY IS AN AMORPHOUS SOLID OBTAINED BY ABRUPTLY COOLING A RAW MATERIAL INCLUDING IRON, BORON, SILICON, ETC. FROM ITS MELTED STATE. THE ALLOY HAS A RANDOM STRUCTURE OF ATOMS RANDOMLY ARRANGED AND HAS A SMALL ENERGY LOSS (HYSTERESIS LOSS) GENERATED BY PASSING MAGNETIC FLUX THROUGH THE CORE. SINCE THE ALLOY CAN BE MADE AS THIN AS ABOUT 0.03mm AND THUS WHEN COMPARED TO A SILICON STEEL BAND, IT CAN REDUCE NO-LOAD LOSS (HYSTERESIS LOSS +EDDY CURRENT LOSS) DOWN TO ABOUT 1/5.



▲ AMORPHOUS ALLOY



▲ SCHEMATIC DIAGRAM OF AMORPHOUS ALLOY

© WHEN YOU WISH "NEW INSTALLATION" OR "RENEWAL" FOR YOUR TRANSFORMER, CLICK "NATIONWIDE BUSINESS WINDOWS" AND ORDER A NEARBY DEALER

205a

[RETURN]

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## FIG. 9

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DEALERS BELONGING TO  
CHUGOKU BRANCH

|TOTTORI| SHIMANE| OKAYAMA| HIROSHIMA| YAMAGUCHI|

## TOTTORI

207a	DEALER NAME	BUSINESS OFFICE	TEL	ADDRESS
	TOTTORI ○△ (K.K.)	HEADQUARTER	0857-22-XXXX	TOTTORI-SHI
		YONAGO BRANCH	0859-22-XXXX	YONAGO-SHI

## SHIMANE

207b	DEALER NAME	BUSINESS OFFICE	TEL	ADDRESS
	□□DENKI (K.K.)	HEADQUARTER	0852-26-XXXX	MATSUE-SHI
		ANRAI	0854-23-XXXX	ANRAI-SHI
		HAMADA	0855-23-XXXX	HAMADA-SHI
		OKI	08512-2-XXXX	OKI-SHI

## OKAYAMA

207c	DEALER NAME	BUSINESS OFFICE	TEL	ADDRESS
	△□DENKI (K.K.)	HEADQUARTER	086-263-XXXX	OKAYAMA-SHI
207d	△△DENKI (K.K.)	CHUGOKU BRANCH OKAYAMA	086-422-XXXX	KURASHIKI-SHI
		CHUGOKU BRANCH TSUYAMA	0868-22-XXXX	TSUYAMA-SHI

## HIROSHIMA

207e	DEALER NAME	BUSINESS OFFICE	TEL	ADDRESS
	(K.K.) HIROSHIMA◎◎	HEADQUARTER	086-284-XXXX	AKI-GUN
		FUKUYAMA BRANCH	0849-23-XXXX	FUKUYAMA-SHI
207f	△△DENKI (K.K.)	CHUGOKU BRANCH	082-247-XXXX	HIROSHIMA-SHI
		CHUGOKU BRANCH KURE	0823-24-XXXX	KURE-SHI

## YAMAGUCHI

207g	DEALER NAME	BUSINESS OFFICE	TEL	ADDRESS
	○□SHOJI (K.K.)	HEADQUARTER	0833-41-XXXX	SHIMOMATSU-SHI
207h	YAMAGUCHI □△DENKI (K.K.)	HEADQUARTER	083-972-XXXX	YOSHIKI-GUN
		IWAKUNI	0827-21-XXXX	IWAKUNI-SHI
207i	△△DENKI (K.K.)	CHUGOKU BRANCH TOKUYAMA	0834-21-XXXX	TOKUYAMA-SHI

[RETURN]

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FIG. 10

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PAGE OF  $\triangle\triangle\bigcirc\bigcirc$ 

OUR COMPANY IS GENERAL DEALER OF (K.K.)  $\bigcirc\bigcirc$   
 WORKS IN  $\triangle\triangle$  PREFECTURE AND HANDLES  
 INDUSTRIAL EQUIPMENT, INFORMATION EQUIPMENT,  
 MOTOR-DRIVEN TOOLS, ILLUMINATION EQUIPMENT,  
 MANUFACTURED BY THE  $\bigcirc\bigcirc$  AND VARIOUS WORKS  
 THEREFOR.

WE WILL SUPPLY NEW PRODUCT INFORMATION AND  
 TECHNOLOGIES THROUGH OUR WWW PAGES TO  
 CUSTOMERS. THANKS FOR YOUR CONTINUED  
 PATRONAGE.

YOUR THE  $\boxed{0\ 0\ 3\ 7\ 1\ 6}$  GUEST.

ENJOY !

CLICK ONE OF FOLLOWING MENUS.

[HANDLING  
PRODUCTS] [PROPOSAL TOWARD [COMPANY  
ENERGY SAVING] GUIDE] [INTERNET SHOP]

301a

301b

301c

301d

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## FIG. 11

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### PROPOSAL TOWARD ENERGY SAVING

△△◎◎ PRPPOSES ENERGY SAVING.

HERE IS AN INTRODUCTION OF PART OF ENERGY-MAVED EQUIPMENT OF ◎◎ INDUSTRIAL EQUIPMENT



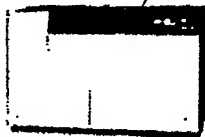
302a

INVERTER



302b

HIGH EFFICIENCY  
MOTOR



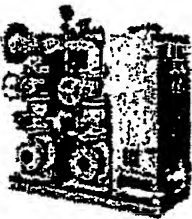
302c

INVERTER SCREW  
COMPRESSOR



302d

INVERTER-  
DRIVEN BLOWER



302e

INVERTER-  
DRIVEN  
PUMP



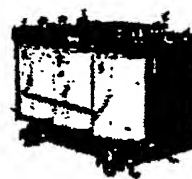
302f

H-NET



302g

SUPERAMORPHOUS  
TRANSFORMER



302h

SUPERAMORPHOUS  
MOLD TRANSFORMER

FOR DETAILS, CLICK THE ABOVE PHOTOS.

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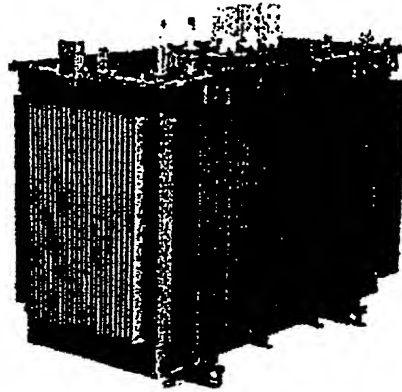
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FIG. 12

303

◎◎ SUPER-ENERGY-MADE  
TRANSFORMER

Super△△△△△△



TOTAL LOSS ABOUT 1/2, SUPER-ENERGY-MADE  
TRANSFORMER DEMANDED BY OUR AGE

ELECTRIC ENERGY IS A MUST IN INDUSTRIES AND LIVINGS A  
TRANSFORMER FOR ELECTRICITY RECEPTION AND DISTRIBUTION  
FOR SUPPORTING OUR ELECTRICITY USE IS REQUIRED TO HAVE  
A HIGH ENERGY CONVERSION EFFICIENCY

■ FEATURES:

1. REMARKABLY REDUCED "NO-LOAD LOSS" AND "LOAD LOSS"  
AND REALIZATION OF "ENERGY SAVING" AND "MINIMUM RUNNING  
COST"
  2. IMPROVED WINDING STRUCTURE OF EMPLOYING CORE MADE  
OF AMORPHOUS ALLOY ENABLED REDUCTION OF TOTAL LOSS  
BY ABOUT 50% (WHEN COMPARED TO EXISTING STANDARD)
  3. MERIT OBTAINED BY THE ATOM ARRAY STRUCTURE OF AMORPHOUS  
ALLOY APPLIED TO THE CORE OF THE TRANSFORMER
- AIMING AT EARTH-FRIENDLY ENTERPRISE, WE ◎◎ PROPOSES  
ENERGY SAVING
  - WHEN YOU HAVE "RENEWAL" OR "NEW INSTALLATION" TO  
SUPER-ENERGY-MADE TRANSFORMER IN MIND, PLEASE CLICK  
ONE OF FOLLOWING MENUS ?

[RENEWAL] [NEW INSTALLATION]

303a

303b

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## FIG. 13

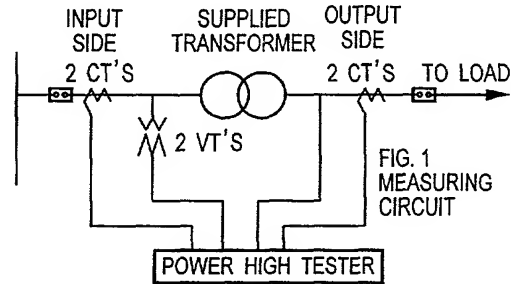
304

## [CUSTOMERS]

- ★ OUR COMPANY IS  $\triangle\triangle\odot\odot$ , A GENERAL DEALER OF (K.K.)  $\odot\odot$  WORKS
- ★ WE RECEIVED MANY MESSAGES SAYING "I AM EXAMINING" RENEWAL TOWARD SUPER-ENERGY-SAVED TRANSFORMER" THANKS FOR YOUR ORDER
- ★ IN OUR (K.K.)  $\odot\odot$  WORKS, IN ORDER THAT CUSTOMERS CAN WELL APPRECIATE ECONOMICAL EFFECTS BASED ON "RENEWAL" AND SUPPORT CUSTOMERS' ENVIRONMENTAL MANAGEMENT (ISO14001 STANDARD), WE CONDUCT FOUR STEPS WHICH FOLLOW

## FIRST STEP : GRASPING POWER USE CONDITION

- INSTALLATION AND WIRING OF MEASURING CIRCUIT OF FIG. 1 TO MEASURE LOAD FACTOR, TRANSFORMER LOSS, ETC.
- THE INSTALLATION AND WIRING IS DONE BY ENGINEERS OF (K.K.)  $\odot\odot$  WORKS,  $\square\square$  FACTORY



## SECOND STEP : PROPOSAL OF TRANSFORMER RENEWAL

- AFTER MEASURING YOUR POWER USE CONDITION IN ABOUT 2 WEEKS, WE WILL SUGGEST THE TRANSFORMER OPTIMUM RENEWAL PROPOSAL ON THE BASIS OF THE MEASUREMENTS AND INFORMS YOU OF ITS ECONOMICAL AND ENVIRONMENTAL EFFECTS.

## THIRD STEP : YOUR JUDGEMENT OF RENEWAL

- PLEASE JUDGE OUR RENEWAL PROPOSAL

FOURTH STEP : SETTING OF INSTALLATION DATE/ADVISES FOR CALCULATION OF CO<sub>2</sub> REDUCTION AMOUNT, ETC.

- LET ME ADVISE THE SETTING OF THE INSTALLATION DATE OF THE SUPER-ENERGY-SAVED TRANSFORMER AND THE CALCULATION OF REDUCED POWER AMOUNT AND CO<sub>2</sub> AMOUNT AFTER RENEWAL
- ★ IF YOU ANSWER FOLLOWING QUESTIONS AND CLICK "SEND", THEN (K.K.)  $\odot\odot$  WORKS,  $\square\square$  FACTORY WILL CONTACT YOU ABOUT DETAILS OF THE FIRST STEP

① WHAT IS SPECIFICATIONS OF YOUR TRANSFORMER NOW IN USE

CAPACITY	PHASE NUMBER	PRIMARY VOLTAGE	SECONDARY VOLTAGE	NUMBER OF TRANSFORMERS	MANUFACTURED YEAR	MANUFACTURE
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

② ABOUT 4 HOURS OF "POWER FAILURE" IS REQUIRED FOR THE INSTALLATION AND WIRING OF THE MEASURING CIRCUIT POSSIBLE ?

YES ☒ NO ☐

③ WHEN IS YOUR DESIRED DATE FOR THE INSTALLATION AND WIRING OF THE MEASURING CIRCUIT ?

[SEND] [CANCEL]

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FIG. 14A

CAPACITY	
50kVA	△
75kVA	
100kVA	
150kVA	
200kVA	
300kVA	
500kVA	
750kVA	
1000kVA	
1500kVA	
2000kVA	▽

FIG. 14B

PHASE NUMBER	
3 PHASE	△
SINGLE PHASE	▽

FIG. 14C

PRIMARY VOLTAGE	
3150V	△
3300V	
6300V	
6600V	▽

FIG. 14D

SECONDARY VOLTAGE	
210V	△
220V	
415V	
420V	
440V	▽

FIG. 14E

TRANSFORMER NUMBER	
1	△
2	
3	
4	
5	
6	
7	
8	▽

FIG. 14F

MANUFACTURED YEAR	
BEFORE 1970	△
1971	
1972	
1973	
1974	
1975	
1976	
1977	
1978	
1979	
1980	
1981	
1982	
1983	
1984	
1985	▽

FIG. 14G

MANUFACTURER	
◎◎	△
A	
B	
C	
D	
E	
F	
G	
H	▽

FIG. 14H

INSTALLATION/WIRING DATE OF MEASURING CIRCUIT	
2001. 10. 1	△
2001. 10. 2	
2001. 10. 3	
2001. 10. 4	
2001. 10. 5	
2001. 10. 6	
2001. 10. 7	
2001. 10. 8	
2001. 10. 9	
2001. 10. 10	
2001. 10. 11	
2001. 10. 12	
2001. 10. 13	
2001. 10. 14	
2001. 10. 15	
2001. 10. 16	▽

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## FIG. 15

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## [CUSTOMERS]

- ★ OUR COMPANY IS  $\triangle\triangle\odot\odot$ , A GENERAL DEALER OF (K.K.)  $\odot\odot$  WORKS
- ★ WE RECEIVED MESSAGE SAYING "I AM EXAMINING" RENEWAL TOWARD SUPER-ENERGY-SAVED TRANSFORMER" THANKS FOR YOUR ORDER
- ★ IN OUR (K.K.)  $\odot\odot$  WORKS, IN ORDER THAT CUSTOMERS CAN WELL APPRECIATE ECONOMICAL EFFECTS BASED ON "RENEWAL" AND SUPPORT CUSTOMERS' ENVIRONMENTAL MANAGEMENT (ISO14001 STANDARD), WE CONDUCT FOUR STEPS WHICH FOLLOW

## FIRST STEP: GRASPING POWER USE CONDITION

- INSTALLATION AND WIRING OF MEASURING CIRCUIT OF FIG. 1 TO MEASURE LOAD FACTOR, TRANSFORMER LOSS, ETC.
- THE INSTALLATION AND WIRING IS DONE BY ENGINEERS OF (K.K.)  $\odot\odot$  WORKS,  $\square\square$  FACTORY

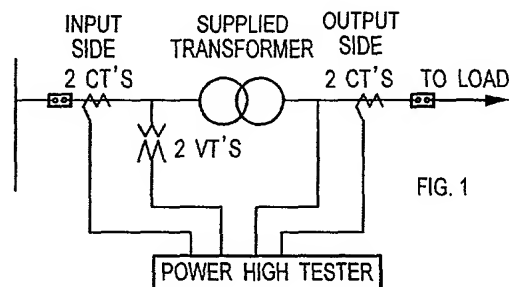


FIG. 1

## SECOND STEP: PROPOSAL OF TRANSFORMER RENEWAL

- AFTER MEASURING YOUR POWER USE CONDITION IN ABOUT 2 WEEKS, WE WILL SUGGEST THE TRANSFORMER OPTIMUM RENEWAL PROPOSAL ON THE BASIS OF THE MEASUREMENTS AND INFORMS YOU OF ITS ECONOMICAL AND ENVIRONMENTAL EFFECTS.

## THIRD STEP: YOUR JUDGEMENT OF RENEWAL

- PLEASE JUDGE OUR RENEWAL PROPOSAL

FOURTH STEP: SETTING OF INSTALLATION DATE/ADVISES FOR CALCULATION OF CO<sub>2</sub> REDUCTION AMOUNT, ETC.

- LET ME ADVISE THE SETTING OF THE INSTALLATION DATE OF THE SUPER-ENERGY-SAVED TRANSFORMER AND THE CALCULATION OF REDUCED POWER AMOUNT AND CO<sub>2</sub> AMOUNT AFTER RENEWAL
- ★ IF YOU ANSWER FOLLOWING QUESTIONS AND CLICK "SEND", THEN (K.K.)  $\odot\odot$  WORKS,  $\square\square$  FACTORY WILL CONTACT YOU ABOUT DETAILS OF THE FIRST STEP

① WHAT IS SPECIFICATIONS OF YOUR TRANSFORMER NOW IN USE

CAPACITY	PHASE NUMBER	PRIMARY VOLTAGE	SECONDARY VOLTAGE	NUMBER OF TRANSFORMERS	MANUFACTURED YEAR	MANUFACTURE
50kVA ▼	SINGLE PHASE ▼	3150V ▼	210V ▼	2 ▼	1978 ▼	$\odot\odot$ ▼
500kVA ▼	3 PHASE ▼	6600V ▼	210V ▼	2 ▼	1975 ▼	$\odot\odot$ ▼
1000kVA ▼	3 PHASE ▼	6600V ▼	210V ▼	4 ▼	1975 ▼	$\odot\odot$ ▼
▼	▼	▼	▼	▼	▼	▼
▼	▼	▼	▼	▼	▼	▼

② ABOUT 4 HOURS OF "POWER FAILURE" IS REQUIRED FOR THE INSTALLATION AND WIRING OF THE MEASURING CIRCUIT POSSIBLE ?

YES ● NO ○

③ WHEN IS YOUR DESIRED DATE FOR THE INSTALLATION AND WIRING OF THE MEASURING CIRCUIT ?

2001.10.20 ▼

[SEND] [CANCEL]

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## FIG. 16

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## [CUSTOMERS]

★ WELCOME TO (K.K.) ◎◎ WORKS, □□ FACTORY !

★ THANKS FOR YOUR ORDER OF "RENEWAL TO SUPER-ENERGY-  
SAVED TRANSFORMER" FOR AN ACCEPTANCE TABLE BELOW

★ THANKS FOR YOUR CONTINUED PATRONAGE OF OUR TRANSFORMERS

401a

401b

## ORDER ACCEPTANCE TABLE FROM ☆☆ INDUSTRY (K.K.)

DEALER NAME	HIROSHIMA : (K.K.) △△◎◎				DATE ACCEPTED : 08 / 08 / 2001	
ORDER	TRANSFORMER RENEWAL				ORDER No. : 34-056	
TRANSFORMER IN USE	CAPACITY	PHASE No.	VOLTAGE	TRANSFORMER NUMBER	MANUFACTURED YEAR	MANUFACTURER
	50kVA	SINGLE PHASE	3150V/210V	2	1978	◎◎
	500kVA	3 PHASE	6600V/210V	2	1975	◎◎
	1000kVA	3 PHASE	6600V/210V	1	1975	◎◎
DESIRED DATE OF INSTALLATION / WIRING OF MEASURING CIRCUIT					10 / 20 / 2001	
POWER FAILURE UPON INSTALLATION / WIRING OF MEASURING CIRCUIT					POSSIBLE	

★ AS A RESULT OF SCHEDULE CONFIRMATION BY OUR FACTORY } 401c  
ENGINEERS, WE ACCEPTED 10 / 20 (Sa.), 2001 AS YOU WISH★ IN ORDER TO PROMOTE SMOOTH INSTALLATION / WIRING OF THE  
MEASURING CIRCUIT, WE WOULD LIKE TO CONTACT YOU ABOUT  
PREVIOUS INSPECTION OF YOUR TRANSFORMERS (ON-THE-SPOT  
CONFIRMATION AND BRIEF ARRANGEMENT). I WOULD LIKE TO BE  
APPRECIATED FOR YOUR "SEND" BY OCTOBER 1ST

① PLEASE ENTER YOUR FIRST PREFERENCE  ▼  ▼  
DESIRED DATE FOR SECOND PREFERENCE  ▼  ▼  
PREVIOUS INSPECTION THIRD PREFERENCE  ▼  ▼

② PLEASE ENTER YOUR ADDRESS / COMPANY NAME / PERSON TO  
BE CONTACTED / TELEPHONE NUMBER

ADDRESS TO BE VISITED	
COMPANY NAME	
PERSON TO BE CONTACT	
TELEPHONE NUMBER	

401d

③ YOUR TRANSFORMER IN USE ☐ INDOORS ☒ OUTDOORS ☐ SO  
INSTALLED INDOORS OR OUTDOORS ?④ THE MEASURING CIRCUIT IS OF AN INDOORS  
INSTALLATION TYPE . INDOORS INSTALLATION ☒ YES ☐ NO ☐ POSSIBLE ?

[SEND] . [CANCEL]

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Applicant: Tomomi Izuna, et al.

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FIG. 17A

PREVIOUS INSPECTION DATE	
2001. 10. 07	△
2001. 10. 08	
2001. 10. 09	
2001. 10. 10	
2001. 10. 11	
2001. 10. 12	
2001. 10. 13	▽

FIG. 17B

TIME	
09 : 00~10 : 30	△
10 : 00~11 : 30	
11 : 00~12 : 30	
13 : 00~14 : 30	
14 : 00~15 : 30	
15 : 00~16 : 30	
16 : 00~17 : 30	▽

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## FIG. 18

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## [CUSTOMERS]

- ★ WELCOME TO (K.K.) ◎◎ WORKS, □□ FACTORY !
- ★ THANKS FOR YOUR ORDER OF "RENEWAL TO SUPER-ENERGY-  
SAVED TRANSFORMER" FOR AN ACCEPTANCE TABLE BELOW
- ★ THANKS FOR YOUR CONTINUED PATRONAGE OF OUR  
TRANSFORMERS

ORDER ACCEPTANCE TABLE FROM ☆☆ INDUSTRY (K.K.)						
DEALER NAME	HIROSHIMA : (K.K.) △△◎◎				DATE ACCEPTED : 08 / 08 / 2001	
ORDER	TRANSFORMER RENEWAL				ORDER No. : 34-056	
TRANSFORMER IN USE	CAPACITY	PHASE No.	VOLTAGE	TRANSFORMER NUMBER	MANUFACTURED YEAR	MANUFACTURER
	50kVA	SINGLE PHASE	3150V/210V	2	1978	◎◎
	500kVA	3 PHASE	6600V/210V	2	1975	◎◎
	1000kVA	3 PHASE	6600V/210V	1	1975	◎◎
DESIRED DATE OF INSTALLATION / WIRING OF MEASURING CIRCUIT					10 / 20 / 2001	
POWER FAILURE UPON INSTALLATION / WIRING OF MEASURING CIRCUIT					POSSIBLE	

- ★ AS A RESULT OF SCHEDULE CONFIRMATION BY OUR FACTORY  
ENGINEERS, WE ACCEPTED 10 / 20 (Sa.), 2001 AS YOU WISH
- ★ IN ORDER TO PROMOTE SMOOTH INSTALLATION / WIRING OF THE  
MEASURING CIRCUIT, WE WOULD LIKE TO CONTACT YOU ABOUT  
PREVIOUS INSPECTION OF YOUR TRANSFORMERS (ON-THE-SPOT  
CONFIRMATION AND BRIEF ARRANGEMENT). I WOULD LIKE TO BE  
APPRECIATED FOR YOUR "SEND" BY OCTOBER 1ST

- ① PLEASE ENTER YOUR FIRST PREFERENCE 2001.10.12 ▼ 15:00~ ▼  
DESIRED DATE FOR SECOND PREFERENCE 2001.10.10 ▼ 10:00~ ▼  
PREVIOUS INSPECTION THIRD PREFERENCE 2001.10.09 ▼ 15:00~ ▼

- ② PLEASE ENTER YOUR ADDRESS / COMPANY NAME / PERSON TO  
BE CONTACTED / TELEPHONE NUMBER

ADDRESS TO BE VISITED	○△-CHO XXXX BANCHI, □□-SHI HIROSHIMA
COMPANY NAME	☆☆ INDUSTRY (K.K.), □□ FACTORY
PERSON TO BE CONTACT	☆☆ INDUSTRY (K.K.), POWER DEPART., △△ JIRO
TELEPHONE NUMBER	XXX-XXX-XXXX

- ③ YOUR TRANSFORMER IN USE INSTALLED INDOORS◎ OUTDOORS○  
INDOORS OR OUTDOORS ?
- ④ THE MEASURING CIRCUIT IS OF AN INDOORS  
INSTALLATION TYPE . INDOORS INSTALLATION YES◎ NO○  
POSSIBLE ?

[SEND] [CANCEL]

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## FIG. 19

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☆☆ INDUSTRY (K.K.) POWER DEPART., Mr. △△ JIRO

★THIS IS (K.K.) ◎◎ WORKS, □□ FACTORY

★SURELY ACCEPTED YOUR CONTACT DATED ON 08 / 16 / 2001  
REGARDING PREVIOUS INSPECTION FOR YOUR ORDER OF  
"RENEWAL TO SUPER-ENERGY- SAVED TRANSFORMER"

402a

ORDER ACCEPTANCE TABLE FROM ☆☆ INDUSTRY (K.K.)						
DEALER NAME	HIROSHIMA : (K.K.) △△◎◎				DATE ACCEPTED : 08 / 08 / 2001	
ORDER	TRANSFORMER RENEWAL				ORDER No. : 34-056	
TRANSFORMER IN USE	CAPACITY	PHASE No.	VOLTAGE	TRANSFORMER NUMBER	MANUFACTURED YEAR	MANUFACTURER
	50kVA	SINGLE PHASE	3150V/210V	2	1978	◎◎
	500kVA	3 PHASE	6600V/210V	2	1975	◎◎
	1000kVA	3 PHASE	6600V/210V	1	1975	◎◎
DESIRED DATE OF INSTALLATION / WIRING OF MEASURING CIRCUIT					10 / 20 / 2001	
POWER FAILURE UPON INSTALLATION / WIRING OF MEASURING CIRCUIT					POSSIBLE	

402b

PREVIOUS INSPECTION ACCEPTANCE TABLE		DATE ACCEPTED : 2001.08.16
PREVIOUS INSPECTION DATE	10 / 12 / 2001 15:00~16:00	
VISITING PLACE	☆☆ INDUSTRY (K.K.) LOCATED AT ○△-CHO, XXXX BANCHI, □□-SHI, HIROSHIMA	
PERSON TO BE CONTACTED	☆☆ INDUSTRY (K.K.), POWER DEPART. Mr. △△ JIRO	
TELEPHONE NUMBER	XXX-XXX-XXXX	

★ AS TO PREVIOUS INSPECTION DATE, AS A RESULT OF  
SCHEDULE CONFIRMATION BY ENGINEERS OF OUR  
COMPANY, WE ACCEPTED YOUR FIRST PREFERENCE:  
10 / 12 (Fri.) / 2001, 15:00-16:30

★ △△ JIRO AT POWER DEPART. OF OUR COMPANY WILL VISIT

402c

★ FOR LATER CONTACT WITH OUR COMPANY, PLEASE  
CONTACT THE FOLLOWING ADDRESS

MAIL ADDRESS : XXXX@XX.XXXXXX.XXXXXX.XX.XX  
TEL : XXX-XXX-XXXX FAX : XXX-XXX-XXXX

402d

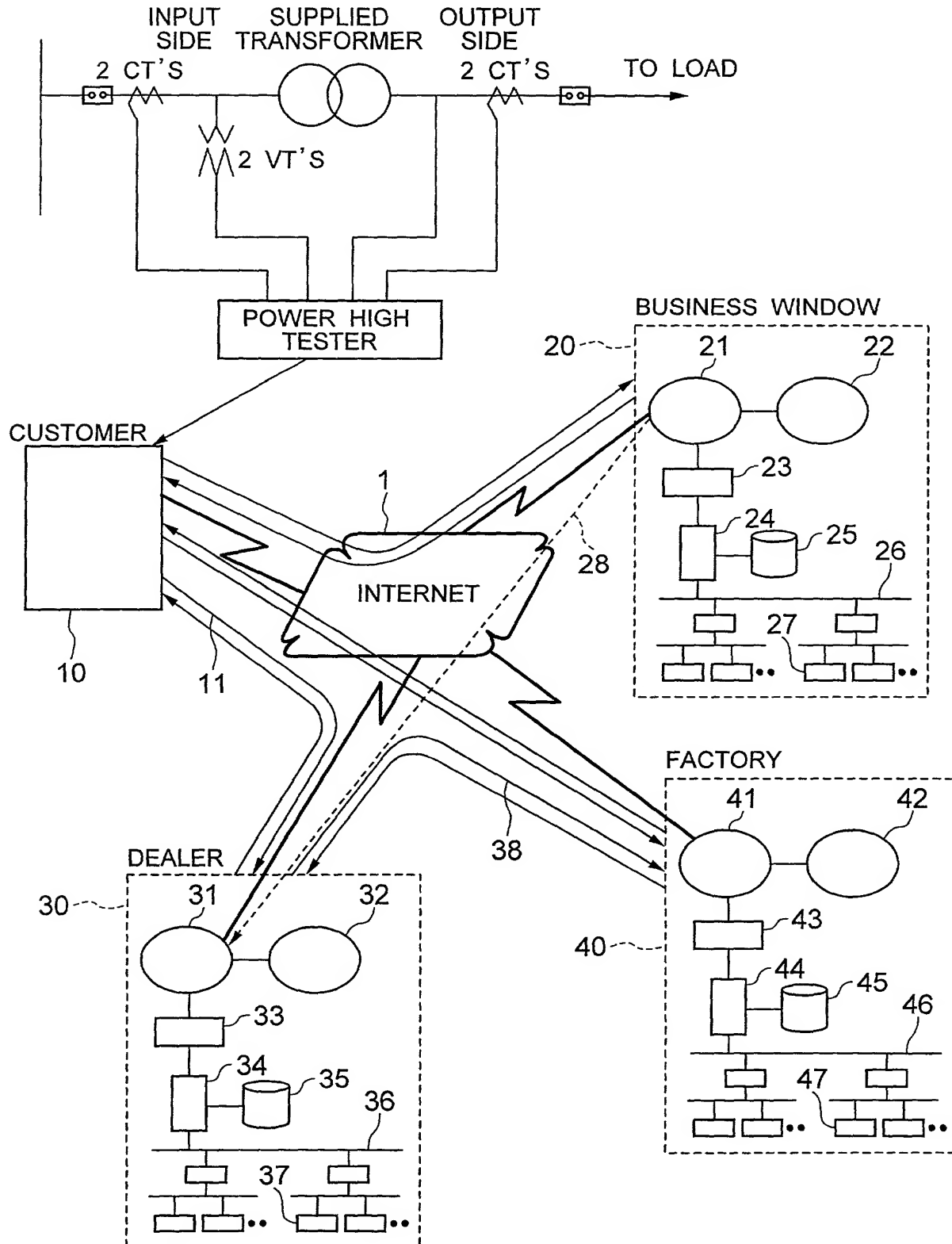
Applicant: Tomomi Izuna, et al.

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FIG. 20



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FIG. 21

EXAMPLE OF MEASURED RESULTS AT TRANSFORMER INPUT/OUTPUT SIDES.

MEASUREMENT DATE	INPUT SIDE (AVERAGE PER DAY)				OUTPUT SIDE (AVERAGE PER DAY)				
	VOLTAGE (V)	CURRENT (A)	EFFECTIVE POWER (W)	POWER FACTOR	VOLTAGE (V)	CURRENT (A)	LOAD FACTOR	EFFECTIVE POWER (W)	POWER FACTOR
	U12	I12	P12	PF12	U34	I34		P34	PF34
2000/12/18 (Mon.)	6597	49.74	412,870	0.710	3407	90.67	0.526	406,943	0.745
19 (Tue.)	6643	47.00	384,072	0.696	3434	85.17	0.499	378,323	0.735
20 (Wed.)	6635	48.01	392,243	0.702	3428	87.22	0.510	386,373	0.740
21 (Thurs.)	6635	48.00	390,984	0.695	3428	87.19	0.511	385,065	0.731
22 (Fri.)	6640	37.51	300,676	0.694	3442	67.13	0.407	295,577	0.740
25 (Mon.)	6582	24.75	192,568	0.575	3425	42.71	0.280	188,427	—
26 (Tue.)	6628	31.45	247,225	0.683	3442	55.56	0.320	242,748	0.731
27 (Wed.)	6639	31.70	248,380	0.681	3447	55.96	0.323	243,858	0.729
28 (Thurs.)	6634	27.91	207,457	0.475	3449	48.15	0.344	202,873	—

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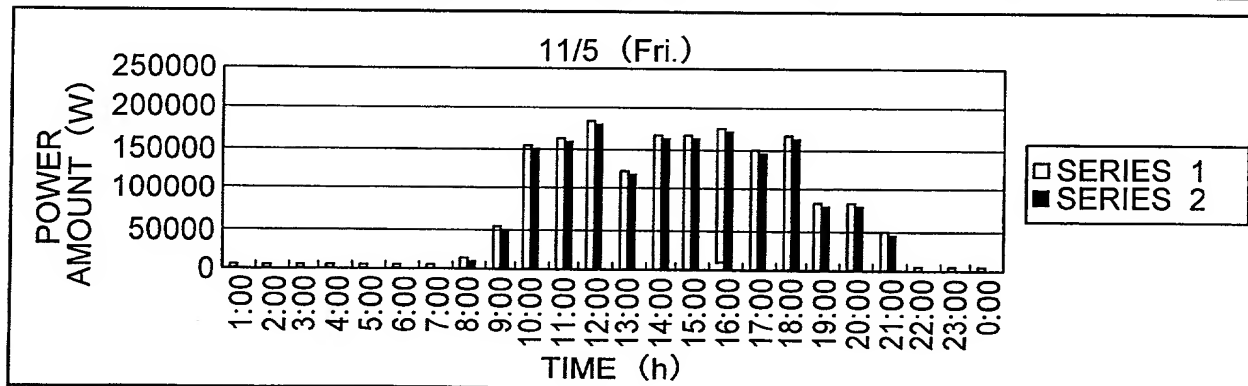
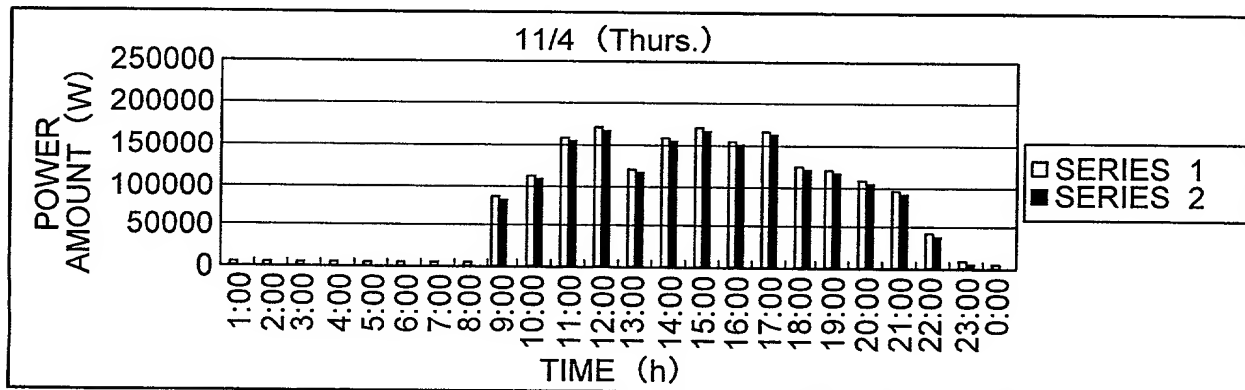
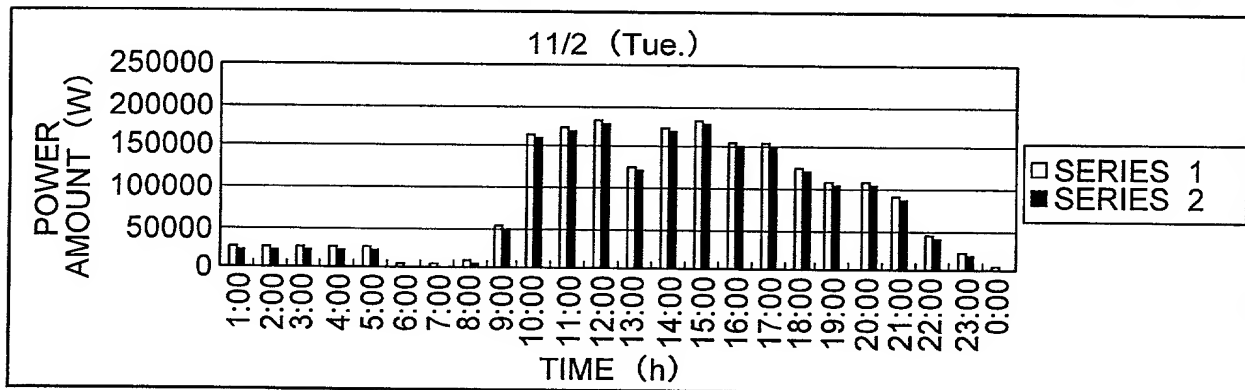
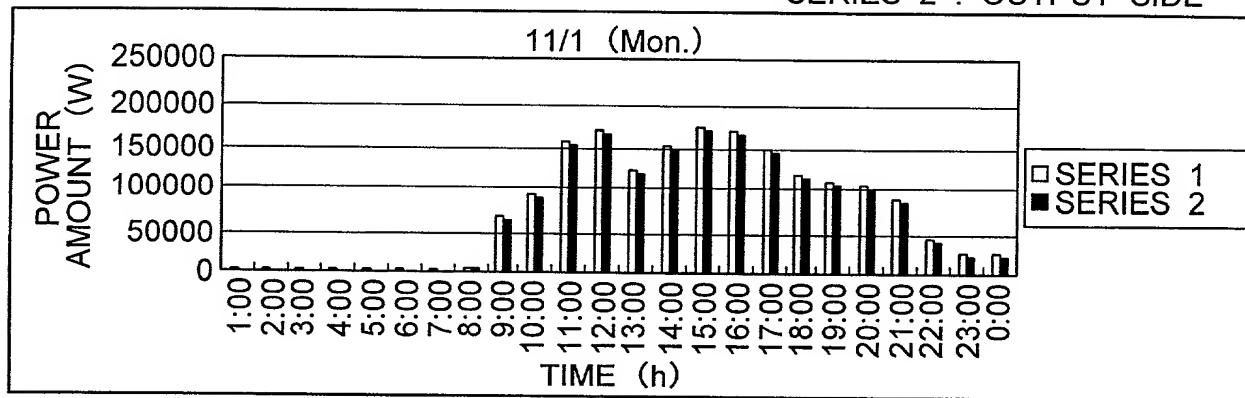
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## FIG. 22

POWER AMOUNT SHIFT AT INPUT / OUTPUT SIDES

SERIES 1 : INPUT SIDE

SERIES 2 : OUTPUT SIDE



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## FIG. 23

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☆☆ INDUSTRY (K.K.)

2001.11.5

POWER DEP., Mr. △△ JIRO

(K.K.) ◎◎ WORKS, □□ FACTORY  
△△ DEPARTMENT, Mr. ○○ TARORE: PROPOSAL TO "RENEWAL TOWARD  
SUPER-ENERGY-SAVED TRANSFORMER"

AS A RESULT OF OUR MEASUREMENT OF YOUR POWER USE  
CONDITION THROUGH 2 WEEKS FROM 10/22/2001 TO 11/02/2001,  
WE SUGGEST THE OPTIMUM RENEWAL PROPOSAL AS FOLLOWS  
THREE FEATURES OF THE RENEWAL ARE AS FOLLOWS. PLEASE  
EXAMINE IT

## REMARKS:

## 1. RENEWAL FEATURES

- (1) AS OUR EXAMINATION OF TRANSFORMER COMBINATION, 5 TRANSFORMERS  
CAN BE COMBINED INTO 3 TRANSFORMERS
- (2) THE RENEWAL TO OUR SUPER-ENERGY-SAVED TRANSFORMER ENABLES  
REDUCTION OF POWER AMOUNT TO XX.X MWh / YEAR AND ALSO  
REDUCTION OF POWER FEE TO XXX, 000 YEN / YEAR
- (3) ENVIRONMENTALLY REDUCTION OF CO<sub>2</sub> TO XX.X T / YEAR CAN BE REALIZED

## 2. PROPOSAL TO RENEWAL

TRANSFORMER	CURRENT STATE		EXAMINED CONTENTS	OUR RENEWAL PROPOSAL
	CAPACITY	MAIN LOAD		
No.1	50kVA	GENERAL POWER, OUTLET	•SMALL LOAD •SHIFT LOAD TO No.4 TRANSFORMER	COMBINE IT INTO No.4 TRANSFORMER
No.2	500kVA	DRYING FURNACE, PRESS, ILLUMINATOR, etc.	•SMALL LOAD •LESS INFLUENCED BY NOISE, VOLTAGE VARIATIONS	COMBINE INTO A SINGLE TRANSFORMER OF 500kVA
No.3	500kVA			
No.4	50kVA	GENERAL POWER, OUTLET	•SMALL LOAD •INCREASE CAPACITY INCLUDING PROSPECTED CAPACITY CORRESPONDING TO LOAD SHIFT OF No.1 TRANSFORMER	COMBINE INTO No.1 TRANSFORMER OF 75kVA
No.5	1000kVA	WELDING MACHINE PRESS, ILLUMINATOR, etc.	•INTERMITTENT LOAD, SUFFICIENT CAPACITY •WORKABILITY IS NOT INFLUENCED EVEN BY CAPACITY REDUCTION	COMBINE INTO A SINGLE TRANSFORMER OF 750kVA

## 3. WE ARE WAITING FOR YOUR CONTACT

- WANT TO PROCEED RENEWAL AS YOUR PROPOSAL. WANT  
KNOW MORE DETAILED EXPLANATION  
○MY QUESTION IS AS FOLLOW. WAIT FOR YOUR REPLY

[SEND] [CANCEL]

**Applicant:** Tomomi Izuna, *et al.*

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FIG. 24

Mr. TARO SCHEDULE

[illegible]